IN THE CLAIMS

Please amend the claims as follows:

1-4. (Canceled)

5. (Currently amended) A patterning method comprising:

a first step of forming a film to be etched over a wafer;

a second step of providing, on the film to be etched, a resist pattern formed out of a resist material sensitive to ArF excimer laser light or an exposure light having a wavelength shorter than that of ArF excimer laser light; and

a third step of etching the film to be etched by using the resist pattern as a mask,

wherein in the third step, the film to be etched is etched so that no deposits are deposited on both side faces of the resist pattern which are at least perpendicular to a radial direction of the wafer, and

wherein in the third step, the step of etching the film to be etched is performed simultaneously with a step of etching the deposits deposited on both side faces of the resist pattern.

6. (Currently amended) The patterning method of Claim 5,

wherein in the third step, the etching is performed so that a remaining pattern size obtained after the etching of the film to be etched is narrower ~~smaller~~ than a predetermined size.

7. (Original) The patterning method of Claim 6,

wherein a pattern shift resulting from the etching of the film to be etched is ± 0 % to – 30 %.

8. (Original) The patterning method of Claim 5,

wherein the film to be etched is made of silicon, silicon compound, carbon or carbon compound, and

wherein in performing the etching so that no deposits are deposited in the third step,

etching gases used include: a first etching gas for allowing the etching to proceed; a second etching gas for allowing the etching to proceed and for producing the deposits; a third etching gas for producing the deposits; and a fourth etching gas for etching the deposits,

a first gas mixture provided by the combination of: the first or second etching gas; the third etching gas; and the fourth etching gas, or a second gas mixture provided by the combination of: the first or second etching gas; and the fourth etching gas is used,

the first etching gas is SF_6, the second etching gas is CF_4 or CHF_3, the third etching gas is at least one of CH_2F_2 and CH_4, and the fourth etching gas is at least one of SF_6, O_2, O_3, CO and CO_2, and

Ar, He, Ne or Xe is used as a dilution gas for diluting the first gas mixture and the second gas mixture.

9. (Currently amended) A patterning method comprising:

a first step of forming a film to be etched <u>over a wafer</u>;

a second step of providing, on the film to be etched, a resist pattern formed out of a resist material sensitive to ArF excimer laser light or an exposure light having a wavelength shorter than that of ArF excimer laser light; and

a third step of etching the film to be etched by using the resist pattern as a mask,

wherein the third step comprises the steps of:

(a) etching the film to be etched while depositing relatively thick deposits on both side faces of the resist pattern; and

(b) etching the film to be etched so that no deposits are deposited on said both side faces of the resist pattern, and

wherein in the step (b) of the third step, the step of etching the film to be etched is performed simultaneously with a step of etching the deposits deposited on both side faces of the resist pattern.

10. (Original) The patterning method of Claim 9,

wherein the film to be etched is formed over a wafer, and

wherein said both side faces of the resist pattern are at least perpendicular to a radial direction of the wafer.

11. (Currently amended) The patterning method of Claim 10,

wherein in the step (a) of the third step, the etching is performed so that a remaining pattern size obtained after the etching of the film to be etched is wider ~~larger~~ than a predetermined size, and

wherein in the step (b) of the third step, an etching condition for the film to be etched is set so that the deposits are etched, and the etching is performed so that the remaining pattern size obtained after the etching of the film to be etched is narrower ~~smaller~~ than a predetermined size.

12. (Original) The patterning method of Claim 11,

wherein a pattern shift resulting from the etching of the film to be etched is ± 0 % to + 20 %.

13. (Original) The patterning method of Claim 9,

wherein the film to be etched is made of silicon, silicon compound, carbon or carbon compound, and

wherein in performing the etching while depositing the relatively thick deposits in the third step,

SF_6 is used as a first etching gas for allowing the etching to proceed,

at least one of CF_4, CHF_3, CH_2F_2 and CH_4 is used as a second etching gas for producing the deposits on the side faces of the resist pattern, and

Ar, He, Ne or Xe is used as a dilution gas for diluting the first etching gas and the second etching gas.

14. (Original) The patterning method of Claim 9,

wherein the film to be etched is made of silicon, silicon compound, carbon or carbon compound, and

wherein in performing the etching so that no deposits are deposited in the third step,

etching gases used include: a first etching gas for allowing the etching to proceed; a second etching gas for allowing the etching to proceed and for producing the deposits; a third etching gas for producing the deposits; and a fourth etching gas for etching the deposits,

a first gas mixture provided by the combination of: the first or second etching gas; the third etching gas; and the fourth etching gas, or a second gas mixture provided by the combination of: the first or second etching gas; and the fourth etching gas is used,

the first etching gas is SF_6, the second etching gas is CF_4 or CHF_3, the third etching gas is at least one of CH_2F_2 and CH_4, and the fourth etching gas is at least one of SF_6, O_2, O_3, CO and CO_2, and

Ar, He, Ne or Xe is used as a dilution gas for diluting the first gas mixture and the second gas mixture.

15. (New) The pattern method of Claim 5,

wherein in the third step, a temperature of a lower electrode holding the wafer is adjusted in the range of 10°C to 20°C.

16. (New) The pattern method of Claim 9,

wherein in the third step, a temperature of a lower electrode holding the wafer is adjusted in the range of 10°C to 20°C.